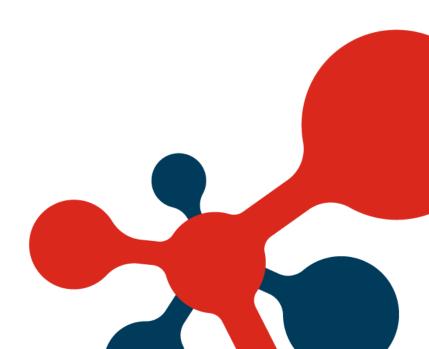


# STRENGTHENING CAPABILITIES FOR INTEGRATED CARE IN A "SUPER-AGED" SOCIETY

30th October 2023





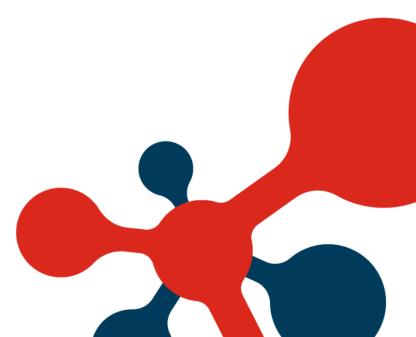
# TECH-ENABLED ELDERCARE: ENHANCING COMMUNITY CARE AND EMPOWERING LIVES

PRESENTED BY



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# **Enhancing Community Care through Technology**

# Technological Innovation as Enablers in Healthy Ageing

Digital health technologies have become a critical enabler for meeting the challenges of aging, with the potential to increase access, expand service coverage, improve the quality of service delivery, reduce health disparities, and lower healthcare cost (Duke-NUS Centre of Regulatory Excellence, 2020).

Holistic Care in Lions Befrienders				
Biomedical	Physical	Mental Emotional	Social	Spiritual
Digital Innovations & Enhancements in <b>SCREENING &amp; MONITORING</b> of Seniors' health  Considerations of our Technology Adoption are:				
Convenience     Non-intrusive     Sustainability     Ability to scale & integrate				



# **Empowering Seniors through Technology**



Impact of Technology on Seniors' Health & Health-Seeking Behavior

### Adoption of Technology in LB's Programmes and Services



Change in Seniors' Perception of Technology & Health-Seeking Behaviour



### **Engagement & Motivation**

Technology empowers seniors to proactively monitor their health status independently, even in the absence of healthcare professionals



Technology offers a less intrusive approach to monitor vital signs and mental health

# Positive Attitude towards Physical Activities

Seniors perceive exergaming and technology-related activities as fun and enjoyable

**Outcomes** 



- Improves Health Literacy
- Preventive Care
- Individual Ownership of Health
- Personal Empowerment

- An entry point to detect invisible health concerns
- Seniors are more willing to engage in such less intimidating form of health assessment
- Encourage seniors to engage in physical activities
- An innovative & engaging means to detect & monitor health issues
- Enhances social interaction among seniors

**Impact** 



- More effort can be targeted at meeting seniors' higher-level needs (i.e., psychological & selffulfillment)
- Ease resource strains in healthcare & community care
- Lowers the barrier for seniors to monitor their vital signs
- Easier to detect and approach seniors with mental health issues
- Improve digital literacy
- Potential to engage seniors with remote active ageing activities (diversify community care programmes)





# **Enhancing Community Care through Technology**

# **LB's Digital Transformation Strategy**

### Preventive & Early-stage Intervention Eldercare

### Virtual Befriending



Exposing seniors to digital content & engagement.

Smartphone Deployment



Equipping seniors with tools to access digital content.

Telemedicine & Teleconsultation



Helping seniors seek medical help more safely and efficiently. AI (Screening)



Screening of seniors' negative emotions & mental health.

IM-OK System (Monitoring)



Empowering seniors to take ownership of their own well-being. IM-HEALTHY Station (Monitoring)



Promote easy monitoring & quick detection of change in health statuses. Ongoing Development



Improving current pilots & finding areas to innovate.

Outcomes

- 1 Strengthen LB's Capability in Community Care
- Change in Seniors' Perception of Technology & Promotes Health-Seeking Behaviour



# **Enhancing the Quality of Community Care**



# LB's Approach

### **HOLISTIC**

LB strives to provide holistic care for seniors. Our TechCare focuses on various aspects of an individual's health and needs.



### **ACCESSIBLE**

LB ensures that our TechCare can be easily accessed and navigated by seniors to lower the barrier to health management.

Our goal is to help seniors familiarize with the TechCare so that they can take ownership of their health.

### **IM-OK System**



**IM-HEALTHY Station** 



### **SCALABLE**

Scalability of LB's TechCare to accommodate future growth and evolving healthcare needs.





IM-OK Ecosystem Version 4



# **Enhancing the Quality of Community Care**



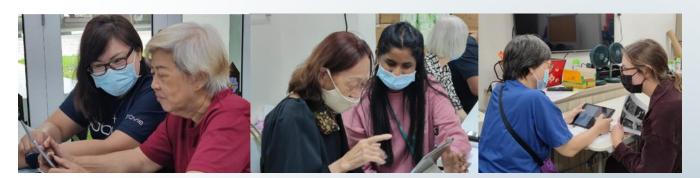
# LB's Approach



LB seeks to gain insights to seniors' experience and attitudes towards adopting technology to elevate their technological experience.

### **Project Cognetivity**

- In addition to the pilot study and analysis, LB went a step further and administered a survey to 209 senior participants to understand what they value and deem important when it comes to doing a dementia screening.
- Questions include: "Do you think the challenges of using CognICA assessments can be overcome?", "What would improve your experience when using CognICA assessments or increase your willingness to adopt it in the future?"
- The feedback gathered from this survey enables LB to improve our services and more importantly, understand the factors that promote or impede seniors' adoption of technology.





# **Enhancing Community Care through Technology**



## Strengthening LB's Capabilities through Technology

Technology streamlines operations, optimizes manpower and resource allocation

### **IM-OK System**

- Wellness Device for Self-Monitoring & Reporting of Wellbeing.
- The utilization of IM-OK enables LB staff to focus on other areas of work.
   Caregivers and healthcare providers can access real-time data and provide timely assistance when necessary.

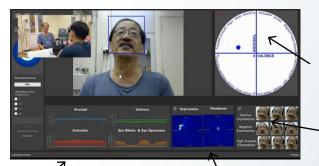


Technology **advances preventive care** – Al-Enhanced
Screening & Diagnostic Tools

Al-powered tools can assist in more accurate and timely disease screening and diagnosis, potentially detecting health issues at earlier, more treatable stages.

### F.A.C.E AI

- Speeds up screening of depression, it sieves out seniors with negative results for further intervention.
- Technology shortens the time needed to screen for depression from 40 minutes to 10 minutes.



Active reading of emotion

Recording of facial expressions

Heatmap of emotions and head pose

Technology **empowers** seniors to **age in place confidently** 

### **IM HEALTHY Station**

- Offers seniors community-based vital signs monitoring for more regular self-monitoring of health at accessible locations.
- As seniors explore and use IM HEALTHY Station more, it reduces their fear of vital signs monitoring.



Intensity of emotions and measurement of eye movements



# **THANK YOU!**

